LISTING OF CLAIMS

Please cancel claims 19-23 and add new claims 25-29:

1-24. (Cancelled.)

25.(New) A method of programming a multi-state memory cell to threshold voltage corresponding to a target state in a memory device, the method comprising:

determining a target state for the memory cell;

programming a first portion of the threshold voltage corresponding to the selected target state of the memory cell using a first selected programming strength dependent on the target state;

determining whether the first portion of the threshold voltage verifies as successfully programmed in response to said programming a first portion of the threshold voltage;

in response to the first portion of the threshold voltage verifying as successfully programmed, adjusting the programming strength to a second selected programming strength;

programming a second portion of the threshold voltage corresponding to the selected target state of the memory cell using the second selected programming strength, wherein the second portion of the threshold voltage is greater than the first portion of the threshold voltage and less than or equal to the threshold voltage corresponding to the selected target state of the memory cell; and

determining whether the second portion of the threshold voltage verifies as successfully programmed in response to said programming a second portion of the threshold voltage.

26.(New) The method of claim 25, wherein the second portion of the threshold voltage is less than the threshold voltage corresponding to the selected target state of the memory cell.

27.(New) The method of claim 25, wherein the second portion of the threshold voltage is equal to the threshold voltage corresponding to the selected target state of the memory cell.

28.(New) The method of claim 25, further comprising, after the step of determining whether the first portion of the threshold voltage verifies as successfully programmed, a step of

returning to the step of programming a first portion of the threshold voltage corresponding to the selected target state of the memory cell using a first selected programming strength dependent on the target state if it is determined that the first portion of the threshold voltage does not verify as successfully programmed in response to said programming a first portion of the threshold voltage.

29.(New) The method of claim 25, wherein the second selected programming strength is weaker than the first selected programming strength